

### REMARKS

Claims 30-52 are pending in this application, with claims 30, 35, 40, 45 and 49 being independent. Claims 32-34, 37-39 and 42-44 have been previously withdrawn. Claims 30, 35 and 40 have been amended to recite “a display device having a pixel circuit, a driver circuit for driving the pixel circuit, and a controller for controlling the driver circuit, which are formed between a pair of substrates.” Support for the amendment may be found in the application at least at pages 8, 9, 15 and 16 and at Figs. 2 and 3. No new matter has been added.

Independent claims 30, 35, 45, and 49, and their dependent claims 31, 36, 46-48 and 50-52 have been rejected as being unpatentable over Ozawa (U.S. Patent No. 4,608,994) in view of Sawatsubashi (U.S. Patent No. 5,148,301).

Each of independent claims 30 and 35, as amended, recites “a display device having a pixel circuit, a driver circuit for driving the pixel circuit, and a controller for controlling the driver circuit, which are formed between a pair of substrates.” Similarly, independent claim 45 recites an active matrix display device that includes a driver circuit formed over a first substrate and “a controller for controlling the driver circuit formed over the first substrate”, and independent claim 49 recites an active matrix display device that includes “a CPU formed over the first substrate.” Applicants request reconsideration and withdrawal of the rejection because neither Ozawa, Sawatsubashi, nor any proper combination of the two describes or suggests a controller for controlling a driver circuit, the controller and the driver circuit both being formed between the same pair of substrates, as recited in claims 30 and 35; a controller for controlling a driver circuit, as recited in claim 45; or a CPU, as recited in claim 49.

As acknowledged by the Examiner, Ozawa does not describe or suggest the specific details of a liquid crystal display, including the above-referenced controller. The Examiner relies on Sawatsubashi as describing the liquid crystal display features that Ozawa fails to disclose.

Sawatsubashi describes a liquid crystal display device that includes a driving circuit inside a seal boundary of the device. The driving circuit is provided between two substrates 101 and 102 and acts to drive a pixel circuit that includes pixel electrodes 103 and pixel TFTs 104. Col. 4, lines 50-57 and Fig. 3. In particular, the driving circuit consists of drain line driving

circuits 112 for supplying data signals to pixel electrodes 103 and gate line driving circuits 113 for controlling pixel TFTs 104. Col. 4, lines 50-57. Each of the drain line driving circuits 112 and the gate line driving circuits 113 comprises an integrated circuit. Col. 4, rows 58-67. Drain line driving circuit 112 includes a data latch circuit 112a and a data signal generating circuit 112b, and gate line driving circuit 113 includes a circulating memory circuit 113a and a gate signal generating circuit 113b Col. 5, lines 17-25. Notably, while Sawatsubashi describes a driving circuit for driving a pixel circuit that is formed between a pair of substrates, Sawatsubashi does not describe or suggest a controller for controlling the driving circuit, much less a controller that is formed between the same pair of substrates.

In asserting the above rejection, the Examiner picks and chooses different portions of the above-described driving circuit and equates them to various features recited in the claims. In particular, the Examiner equates the gate line driving circuit 113 with the controller recited by claims 30 and 35; the integrated circuit described in col. 4, rows 58-67 of Sawatsubashi with the controller for controlling the driver circuit recited by claim 45; and the data signal generating circuit 112b with the CPU recited by claim 49.

Applicants disagree with this characterization. As described above, neither the gate line driving circuit 113 nor the integrated circuit described in col. 4, rows 58-67 is a controller for controlling a driving circuit. Rather, each is a part of the same driving circuit for driving a pixel circuit formed by pixel electrodes 103 and pixel TFTs 104. Similarly, the data signal generating circuit 112b, which is included in drain line driving circuit 112, is not a CPU, but rather is also part of the same driving circuit. For at least the reasons described above, applicants request reconsideration and withdrawal of the rejection because neither Ozawa, Sawatsubashi, nor any proper combination of the two describes or suggests the recited controller for controlling a driver circuit or the recited CPU.

Independent claim 40 and its dependent claim 41 has been rejected as being unpatentable over Yamano (U.S. Patent No. 4,743,122) in view of Sawatsubashi. Independent claim 40, as amended, recites “a display device having a pixel circuit, a driver circuit for driving the pixel circuit, and a controller for controlling the driver circuit, which are formed between a

pair of substrates.” Yamano does not remedy the failure of Sawatsubashi to describe or suggest the recited controller. Accordingly, for at least the reasons described above, applicants request reconsideration and withdrawal of the rejection of claim 40 and its dependent claim 41 because neither Yamano, Sawatsubashi, nor any proper combination of the two describes or suggests a controller for controlling a driver circuit, the controller and the driver circuit both being formed between the same pair of substrates.

Applicants submit that all claims are in condition for allowance.

The fee in the amount of \$120 in payment for the Petition for Extension of Time fee is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Date: \_\_\_\_\_

7/20/06

Respectfully submitted,



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